EXHIBIT 53

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March 1, 2010

Pennsylvania Institutional Law Project

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Suite 304 South

Philadelphia, PA 19106

ATTN: Jennifer J. Tobin, Esq.

Dear Ms. Tobin,

Enclosed please find my report, "Dental Care at Northumberland County Prison: Sunbury, Pennsylvania.

Sincerely,

Jay D. Shulman, DMD, MA, MSPH

DENTAL CARE AT NORTHUMBERLAND COUNTY PRISON

SUNBURY, PENNSYLVANIA

SUBMITTED TO: PENNSYLVANIA INSTITUTIONAL LAW PROJECT
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PERTAINING TO: COLLINS V. REISH
M.D. PA 08-CV-345

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MARCH 2, 2010

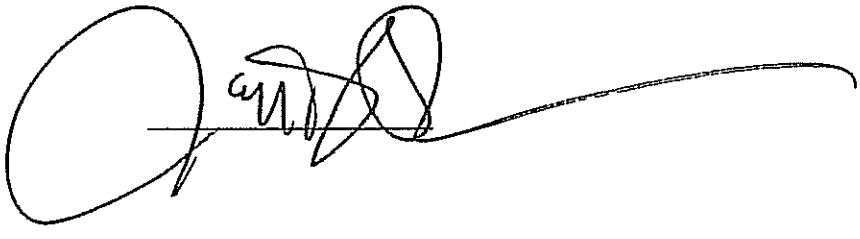

TABLE OF CONTENTS

11. EXHIBITS

1.0 Executive Summary

After reviewing 80 health records of Northumberland County Prison ("NCP") inmates who presented with dental complaints, 51 invoices for dental treatment, depositions, policies, procedures, historical and other reports, it is my opinion, based on a reasonable degree of medical certainty, that the treatment of inmates with dental complaints falls below the standard of care, exposes them to substantial risk of harm, results in the unnecessary infliction of pain, and has the effect of delaying or denying dental care to many inmates.

I base my opinion on the following:

- NPC often failed to provide a competent examination and diagnosis;
- NPC policy promoted the unnecessary and excessive use of antibiotics;
- NPC failed to follow-up inmates with dental infections;
- NPC failed to provide timely (or any) referrals to a dentist for many inmates;
- NPC limited the dental services it provided to extractions.

2.0 Background

I was retained by the Pennsylvania Institutional Law Project on June 22, 2009 as an expert witness in *Collins v. Reish*, a federal civil rights lawsuit challenging the constitutionality of conditions of confinement at NCP. My rates are $150/hour for time spent while travelling, $300/hour for work performed on or off-site, and $500/hour for testimony at trial or deposition. To date, I have billed the Pennsylvania Institutional Law Project $14,949 for professional services with $9,300 not yet invoiced.

2.1 Professional Qualifications.

I have been a dentist for 38 years during which time I had a military as well as an academic career. I have published in the peer-reviewed scientific literature and am a faculty member at a dental school. In addition, I have published in the correctional literature and have lectured on correctional dentistry.

I am a court-appointed monitor for federal class action lawsuit settlements involving dental care in the Ohio (*Fussell v. Wilkinson*) and California (*Perez v. Cate*) prison systems. Moreover, in California I am also a Court Representative, responsible to the *Perez* Court for coordinating remedies between dental (*Perez v. Cate*), medical (*Plata v. Schwarzenegger*), mental health (*Coleman v. Schwarzenegger*), and *Americans with Disabilities Act*

(*Armstrong v. Schwarzenegger*) lawsuits. I was an expert witness retained by the Wisconsin Department of Justice in *Flynn v. Doyle*, a federal class action lawsuit involving all aspects of health care at Taycheedah Correctional Institution. My qualifications, including a list of all publications I authored in the past 10 years, are provided in the attached *curriculum vitae* (Exhibit A). The only testimony I have provided in the past four years was a deposition in *Flynn v. Doyle* on June 6, 2008.

2.2 Organization of the Report.

The substantive portion of this report is in eight sections. I discuss the etiology, diagnosis, and treatment of odontogenic pain (toothache) in §4, laying the foundation for §7, my view of the standard of care for treating odontogenic pain. I discuss the scope of care in correctional dentistry briefly in §5 and segue to a discussion of the standard of care for access to a dentist in correctional institutions in §6. My view of the standard of care for access to dental care is drawn from recommendations of 1) health organizations; 2) stipulated injunctions from major class action litigation involving dental treatment, 3) recommendations by the U.S. Department of Justice related to dental care in jails, and 4) my experience in institutional care.

My review of the Inmate Health Records, dental treatment records, NCP policies, records, and deposition transcripts is presented in §8. Moreover, I contrast the NCP dental program to standards of care described in §6 and §7. This establishes the basis for the opinions I present in §9. Each opinion is followed by a brief discussion of how the NCP dental program falls below the previously set forth standards of care. The References in §10 are to materials obtained as the result of discovery, material from the federal courts, the U.S. Department of Justice, and the scientific literature.

The Exhibits in §11 provide a greater level of detail to support my opinions than I set forth in the body of the report. Exhibit A provides my *curriculum vitae*, expanding on ¶2.1, Exhibit B lists the material I reviewed, Exhibit C contains clinical narratives from the Inmate Health Records, and Exhibit D summarizes the data in Appendix C.

3.0 OBJECTIVES

I was asked by Jennifer Tobin, Esq. of the Pennsylvania Institutional Law Project and Jere Krakoff, Esq. to review 1) health and related policies and procedures, 2) health records of inmates with dental complaints, 3) dental treatment records, and 4) three

depositions. After having done so, I was asked to express my opinion as to the quality of NCP's program for treating inmates with dental problems.

4.0 Etiology, Diagnosis and Treatment of Odontogenic Pain

Odontogenic pain (toothache) is not necessarily caused by infection; consequently, before prescribing antibiotics, it is critical to perform a proper examination on which to base a diagnosis. While the Prison Medical Department can provide analgesics and antibiotics when indicated, the toothache will worsen without dental care.

4.1 Etiology of Odontogenic Pain.

Among the (non-traumatic) causes of tooth pain are 1) tooth fractures[1]; 2) caries (decay) extending through the enamel into dentin; 3) reversible pulpitis[2] due to, for example, large restorations (fillings); 4) irreversible pulpitis; 5) dental (periapical or periodontal) abscess; and 6) cellulitis (a diffuse inflammation of the connective tissue). What these conditions have in common however, is while the pain can be palliated with analgesics, they all require definitive treatment by a dentist or they will worsen.

4.2 Diagnosis of Odontogenic Pain.

Since there are several causes of toothache and the treatment differs according to the cause, a clinician must first identify the cause.[3,4] The physical examination should include 1) inspecting and palpating the lips and salivary glands, the floor of the mouth and lymph nodes of the neck; 2) assessing the tooth for tenderness and mobility; and 3) evaluating the patient for deep space infection (Friedman at 1136), and 4) taking vital signs[5]. Peterson at 349; Makrides *et al.* at 559.

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[1] It is not unusual for a tooth that has been weakened (*e.g.*, by a filling) to crack in the course of normal chewing. This can be extremely painful.

[2] Reversible pulpitis is an inflammation of the pulp (the living tissue within the tooth) characterized by heightened sensitivity to stimuli, specifically hot and cold, that will resolve when the cause (*e.g.*, decay, fractured restoration, exposed root) is removed.

[3] While an intraoral radiograph is the standard of care in a dental office, it is generally not available in a hospital emergency department or medical outpatient clinic.

[4] In fact, there are several non-dental conditions that may present with dental pain such as sinusitis, otitis media, pharyngitis, peritonsilar abscess, temporomandibular joint syndrome, trigeminal neuralgia, vascular headache, herpes zoster, and cardiac ischemia. Friedman at 1136. Sinusitis is suspected if many or all maxillary posterior teeth on one side are sensitive to percussion or if the patient reports pain on bending over with the head down. Kaplan *et al.* at Ch. 16.

[5] Blood pressure, temperature, respiration rate, pulse and pain.

4.3 Odontogenic Infections.

Odontogenic infections range from the well-localized / low-grade that is easily manageable to infections of the fascial (deep tissue) spaces that are life-threatening. Makrides *et al.* at 559. The most common cause is an infection of the pulp of the tooth with a bacterial invasion of tissue surrounding the root tip, or apex; while the other is an infection arising from a periodontal pocket. Peterson at 346. Most odontogenic infections are mild and require minor therapy. *Id.* at 347.

The primary principle of managing odontogenic infections is to remove the source; commonly a necrotic (dead) pulp or deep periodontal pocket, while the secondary goal is to provide drainage of accumulated pus and necrotic debris. Peterson at 352. If the tooth is to be salvaged, it should be opened and the pulp removed (establishing drainage through the tooth) and, on occasion, an incision and drainage procedure can be performed. Otherwise the tooth should be extracted as soon as possible. *Id.*

Appropriate treatment for oral infections varies with the type of infection (chronic or acute), extent of dissemination (localized or spreading) and immunocompetency of the host (intact versus compromised defense mechanisms due to underlying disease). In an immunocompetent patient or a patient whose systemic disease is controlled by medication, a chronic, or acute localized infection can, and should, be managed without the administration of antibiotics. Surgical treatment consisting of incision and drainage, with tooth extraction or endodontic therapy are usually sufficient. Kuriyama *et al.* at 600.

There are three treatment options for patients presenting with a toothache due to pulpitis. Patients without fever, intraoral swelling or swelling that produces facial asymmetry should be given analgesics and referred to a dentist within 24 hours; patients with low-grade fever or slight intraoral or extraoral (outside the mouth; *i.e.*, on the skin of the face or neck) swelling should receive an antibiotic and be referred to a dentist within 12 to 24 hours[6]; and patients with temperatures greater than 101°F need immediate consultation and treatment by a dentist. Macleod at 1712-1713.

[6] Since a dental appointment within 12-24 hours is not feasible at an institution that does not have a dental clinic, it is critical that the inmate be monitored by a registered nurse, physician's assistant, or physician until the dental appointment. The inmate should be referred to a hospital immediately if the infection appears to be spreading.

4.3.1 Treating Odontogenic Infections with Antibiotics.

Antibiotics given to a patient with an odontogenic infection do not resolve the underlying problem (*i.e.*, the infected tooth). Consequently, "[a]ntibiotic therapy should be used as an adjunct to dental treatment and never used alone as a first line of care". Swift and Gulden at 625. A clear indication for antibiotic use is the presence of fever or extraoral swelling. Macleod at 1712; Makrides *et al.* at 559-560. However, dealing with the source of the infection (extraction or root canal therapy) should occur promptly.

Antibiotics penetrate poorly or not at all into periapical abscesses or an infected root canal system because of reduced blood supply and the presence of necrotic tissue. Slots and Pallasch at 1339. Therefore, antibiotic therapy should be reserved for individuals with spreading infections, cellulitis, a suppressed immune system, fever, malaise or lymphadenopathy (swollen / enlarged lymph nodes). *Id.*

While antibiotics often are indicated for the treatment of overt odontogenic infections, it is estimated that they are used inappropriately in 75 percent of cases involving dental conditions without signs of infection. Brennan *et al.* at 62. In fact, antibiotics are not always indicated for a patient presenting with indicated when treating dental pain. Removal of the pulp of the tooth to establish drainage or extraction are the appropriate treatments. "Appropriate analgesics may be indicated but antibiotics are not. The patient's condition should improve rapidly once the source of the infection is eliminated." Swift and Gulden at 629. The use of antibiotics in the management of localized acute apical abscess, over and above establishing drainage of the abscess, is not recommended. Matthews *et al.* at 660g; Makrides *et al.* at 560. "Prescribing 'just to be on the safe side' increases when there is diagnostic uncertainty, lack of prescriber knowledge regarding optimal diagnostic approaches, lack of opportunity for patient follow-up, or fear of possible litigation." WHO at 1.

The American Association of Endodontists' guidance is that "a regimen of antibiotics is not indicated in an otherwise healthy patient for a small localized swelling without systemic signs and symptoms of infection or spread of infection". AAE, 2006 at 2. Indications for antibiotic include: 1) fever greater than 100°F, 2) malaise, 3) lymphadenopathy, 4) trismus (limited jaw opening), 5) increased swelling, 6) cellulitis, 7) osteomyelitis (bone infection), and 8) persistent infection. *Id.*

Prescribing antibiotics unnecessarily is not a benign practice. Bacterial resistance to antibiotics is associated with exposure to antibiotics; the inappropriate use and the increased volume of which has elevated bacterial resistance to a major public health concern; making an increasing number of infectious diseases difficult to treat. Although the problem has been recognized for many years, injudicious use of antibiotics continues to be a major public health problem. Huang *et al.* at 414; WHO at 1.

4.3.2 Antibiotic Premedication.

The American Heart Association ("AHA") advises antibiotic prophylaxis for patients with cardiac conditions associated with the highest risk of adverse outcome from infective endocarditis, a life-threatening condition.[7,8] AHA at 1745. The American Academy of Orthopedic Surgeons ("AAOS") recommends antibiotic prophylaxis for dental patients who are scheduled for invasive procedures who have had joint replacements.

> *Given the potential adverse outcomes and cost of treating an infected joint replacement, the AAOS recommends that clinicians consider antibiotic prophylaxis for all total joint replacement patients prior to any invasive procedure that may cause bacteremia* [bacteria in the bloodstream]. *This is particularly important for those patients with one or more of the following risk factors.*[9]

AAOS, 2009 at 1.

5.0 Scope of Care in Correctional Dentistry

While the scope (or level) of care in a correctional institution may be less extensive than that in the community, the standard for quality is the same. Makrides *et al.* at 557. The focus of correctional dentistry is the control of acute and chronic dental pain, stabilization of

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[7] *Prosthetic cardiac valve or prosthetic material used for cardiac valve repair; Previous infective endocarditis, unrepaired cyanotic congenital heart disease ("CHD"), including palliative shunts and conduits; Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure; repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device; cardiac transplantation recipients who develop cardiac valvulopathy.* AHA at 1745.

[8] The recommended oral prophylaxis regimen for adults who are scheduled for invasive procedures (that involve manipulation of gingival (gum) tissue or the periapical region of teeth or perforation of the oral mucosa) is a single dose of Amoxicillin (2 grams) taken 30 to 60 minutes before the appointment. For patients who are allergic to penicillin, a recommended alternative is Clindamycin (600 mg).

[9] *All patients with prosthetic joint replacement, [i]mmunocompromised / immunosuppressed patients, [i]nflammatory arthropathies (e.g.: rheumatoid arthritis, systemic lupus erythematosus), [d]rug-induced immunosuppression, [r]adiation-induced immunosuppression, co-morbidities (e.g.: diabetes, obesity, HIV, smoking), previous prosthetic joint infections, [m]alnourishment, [h]emophilia, HIV infection, [i]Insulin-dependent (Type 1) diabetes, [m]alignancy, [m]egaprostheses.*

dental pathology, and maintenance or restoration of function. Dental treatment should not be limited to extractions and should include restorations (fillings).

Makrides *et al.* recommend that short-term (12 months or less) inmates be provided intake examinations, extractions, pulpectomies (removal of the pulp of the tooth), temporary and permanent restorations, patient education and relief from dental pain. *Id.* at 557. Moreover, "[s]pecial consideration should be made by jails for those inmates who have extended (greater than 12 month) sentences"[10]. *Id.* at 556.

6.0 Standard of Care for Access to a Dentist

Inmates complaining of a toothache should have timely access to a dentist. The dental appointment should be made as soon as the toothache is identified by the Medical Department – and not after one or more courses of antibiotics have been administered. If an infection is present, the appointment should occur within two weeks. Where, in the opinion of the examining dentist, the tooth at issue can be repaired with a filling, the dentist should be reimbursed for the service.

6.1 Health Organizations.

The American Public Health Association ("APHA") recommends that:

> *The intake medical screening must include an examination of the teeth and gums. Any prisoner with emergency dental pain or problems identified at intake must be referred to a dentist promptly.*

APHA at 89-90. Moreover,

> *[f]ollow-up services will be provided in clinically appropriate time frames as established by the dentist in conformance with national community standards for dental care. Specific follow-up appointments will be scheduled.*

Id. at 90.

The National Commission on Correctional Health Care ("NCCHC") standard for oral care in jails specifies that:

> [oral] *care is timely and includes immediate access for urgent or painful conditions* [and] [t]*here is a system of established priorities for care when, in the dentist's judgment, the inmate's health would otherwise be adversely affected.*

[10] According to Warden Reish, the longest time a person can be sentenced to NCP under law is 23 months, 29 days. Reish Deposition at 16 *infra*.

NCCHC at 69. Among the compliance indicators for the above standard are: 1) oral screening is performed by the dentist or qualified health care personnel trained by the dentist, 2) an oral examination is performed by a dentist within 12 months of admission, 3) oral treatment, not limited to extractions, is provided according to a treatment plan, and 4) all aspects of the standard are addressed by written policy and defined procedures. *Id.* at 69-70.

6.2 Dental Care in State Prison Systems.[11]

6.2.1 *Fussell v. Wilkinson* (Ohio).

The stipulated injunction settling the above class action lawsuit challenging the constitutionality of the health care[12] provided by the Ohio Department of Correction and Rehabilitation addressed dental care. The importance of a proper examination for inmates presenting with odontogenic infection was recognized.

> *Inmates whose complaints suggest a dentoalveolar infection* [*e.g.*, pain in conjunction with swelling] *should be seen by a dentist, physician, or appropriately trained MLP*[13] *within 24 hours. Where the complaint includes difficulty in breathing or swallowing, or purulent discharge into the mouth or nose, the inmate should be seen by a dentist, physician, or appropriately trained MLP immediately. MLPs should have documented training in the identifying and stabilizing dentoalveolar infections with antibiotics and analgesics.*

Id. at 18.

6.2.2 *Perez v. Cate* (California).

As part of the stipulated injunction settling the above case that challenged the constitutionality of the dental care provided by the California Department of Corrections and Rehabilitation[14], the state agreed to the following: "[w]ithin 60 calendar days of arrival at a Reception Center (RC), each inmate shall receive a dental screening by a dentist as part of the RC inmate classification process ..." *Id.* at 2.2-1. Moreover, inmates "with a dental condition of sudden onset or [who are] in severe pain, which prevents them from carrying out essential activities of daily living" shall receive treatment within 24 hours while inmates

[11] Ohio and California are the only two adult systems whose dental care is monitored by the federal courts.

[12] Excluding mental health.

[13] MLP (mid-level provider) is a physician's assistant or a registered nurse.

[14] Pursuant to 42 U.S.C. § 1983.

"requiring treatment for a sub-acute hard or soft tissue condition that is likely to become acute without early intervention" shall be treated within 30 days. *Id.* at 5.4-3.

6.3 Dental Care in Jails.

The Civil Rights Division of the U.S. Department of Justice enforces the *Civil Rights of Institutionalized Persons Act* ("*CRIPA*") that authorizes the United States Attorney General to investigate and take appropriate action to enforce the constitutional rights of jail inmates subject to a pattern or practice of unconstitutional conduct or conditions.

6.3.1 *U.S. v. Lupe Valdez, Sheriff of Dallas County, Texas*.

A recent stipulated injunction related to conditions of confinement at the Dallas County Jail arising under *CRIPA* required that

> *Defendants shall ensure that inmates receive adequate dental care consistent with generally accepted professional standards of care and that such care be provided in a timely manner.*
>
> *Defendants shall ensure that inmates with emergency dental needs shall receive such care immediately. Adequate dentist hours will be provided to avoid unreasonable delays in dental care.*

Dallas County Stip. at ¶13.

6.3.2 Cook County *CRIPA* Investigation.

A letter from the U.S. Department of Justice to the Sheriff of Cook County (Chicago, IL) relating the results of a 2007 investigation of conditions at the Cook County Jail ("CCJ") identified (*inter alia*) deficiencies in access to dental care:

> *Contrary to generally accepted correctional standards, dental care at CCJ is not timely and does not include immediate access for painful or urgent conditions.*
>
> *During our June 2007 on-site visit, we found that there was only one dentist responsible for over 9,500 inmates. We further learned that the dentist was unable to perform any restorative care. The dentist's services were limited to extractions and it usually takes about two weeks before the dentist was able to perform any necessary follow-up care.*
>
> *...We also found that the dentist typically was unable to treat inmates with serious or urgent dental needs. We found many instances where inmates complained of tooth abscesses, but the dentist was unavailable to treat their serious dental needs. For example, inmate Derek B. was admitted to CCJ on June 17, 2007, with a tooth abscess. Although Derek requested dental care, the CCJ dentist did not provide treatment for his tooth abscess.*
>
> *As a result of the dentist's inability to treat serious dental needs, the Cermak emergency room and sick call are inundated with dental emergencies. Despite having*

> *Cermak physicians treat these serious dental emergencies, inmates continue to suffer needlessly because they do not receive appropriate follow-up care.*

Cook County Letter at 57-58. Among the Civil Rights Division's recommendations to the CCJ[15] was one related to dental care.

> *Ensure that inmates receive adequate dental care in accordance with generally accepted professional standards of care. Such care should be provided in a timely manner.*[16]

Id. at 89.

6.3.3 Lake County *CRIPA* Investigation.

A letter from the Department of Justice summarizing the findings of its investigation of the Lake County, Indiana Jail identified that "[i]nsufficient dentist time inappropriately limits dental care to prescription for antibiotics and extractions." Lake County Letter at 15. With respect to waiting time for dental care, the letter stated: "[c]onsequently, this wait for medical care violates constitutional minimums, leaving significant inmate medical needs inadequately addressed or completely unmet. For example, inmates wait approximately eight weeks for dental care." *Id.* at 15. Among the minimum remedial measures was "[e]nsure dental hours accommodate the need for dental care." *Id.* at 29.

7.0 Standard of Care for Diagnosing and Treating Odontogenic Pain

In institutions that do not have a dental clinic, inmates complaining of a toothache with pain that interferes with eating sleeping or work should be assessed or examined by a mid-level provider (not a licensed practical nurse) or a physician within 24 hours to determine if an infection is present, and if so whether it is appropriate to begin a course of antibiotics or refer the patient to hospital. The standard of care for treating odontogenic pain requires 1) a competent well-documented examination of the mouth; 2) a diagnosis and treatment based on sufficient clinical data; 3) prompt referral to a dentist; and 4) documented follow-up.

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[15] *In order to rectify the identified deficiencies and protect the constitutional rights of inmates confined at CCJ, this facility should implement, at a minimum, the following remedial measures:*
Id. at 79.

[16] The point here is that U.S. Department of Justice interprets the "generally accepted correctional standard" for access to dental care to be timely access to a dentist. Moreover, despite having physicians treat "serious dental emergencies" (*i.e.* dental abscesses), appropriate follow-up care from a dentist is essential and inmates who do not receive such care "suffer needlessly".

7.1 Proper Examination.

Determining the cause and seriousness of the toothache requires a timely examination.

> *All [dental] urgent care needs should be evaluated and treated in a timely manner. Although it is always not necessary to clinically treat a dental complaint upon initial examination, it is important that the patient be assessed by medical or dental staff on the same day that an acute dental condition is identified. Failure to do so may result in a deterioration of the patient's health status resulting in a potentially negative outcome.*

Makrides *et al.* at 556.

It is important that a clinician examine the patient (or in the alternative, rely on a competent examination performed by an appropriately trained clinician) to determine whether an infection is present, and if so, the seriousness of the infection (¶4.2). For example, a cracked tooth may cause severe pain; however, it is not infected. Similarly, since antibiotic use is inappropriate without certain clinical findings (¶4.3.1), a clinician cannot make a proper decision absent such an examination.[17]

7.2 Diagnosis and Treatment.

It is a standard of care in clinical practice that before undertaking a course of treatment, one "render[s] a competent diagnostic determination" and "document[s] the history, physical, diagnostic tests, and treatment plan". PA OM Board at 1.

7.2.1 Diagnosis.

Since there are several causes of toothache and the treatment differs according to the cause, a clinician must identify the cause.[18,19] The physical examination should include 1) inspecting and palpating lips and salivary glands, the floor of the mouth and lymph nodes of the neck, 2) assessing tooth for tenderness and mobility, and 3) evaluating patient for deep

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[17] For example, the Pennsylvania State Board of Osteopathic Medicine states that "*existing minimum standards of care require that prior to developing and implementing a treatment plan an osteopathic physician must: obtain a proper medical examination and history; render a competent diagnostic determination; advise and counsel the patient on that determination; document the history, physical, diagnostic tests, and treatment plan; and, engage in and document follow-up counseling and treatment*". Board at 1.

[18] While an intraoral radiograph is the standard of care in a dental office, it is generally not available in an emergency department or medical outpatient clinic.

[19] In fact, there are several non-dental conditions that may present with dental pain such as sinusitis, otitis media, pharyngitis, peritonsilar abscess, temporomandibular joint syndrome, trigeminal neuralgia, vascular headache, herpes zoster, and cardiac ischemia. Friedman at 1136. Sinusitis is suspected if many or all maxillary posterior teeth on one side are sensitive to percussion or if the patient reports pain on bending over with the head down. Kaplan *et al.* at Ch. 96.

space infection (Friedman at 1136), and 4) vital signs. Peterson at 349; Makrides *et al.* at 559.

7.2.2 Treatment.

A reasonable and prudent clinician must base treatment on a proper examination and a diagnosis derived from the examination. Moreover, there should be a documented treatment plan. PA OM Board at 1. As is true for many other conditions, the treatment of odontogenic pain depends on the diagnosis; and ranges from placing or replacing a defective restoration (filling) to incision and drainage to extraction or endodontic (root canal) treatment. Antibiotics should not be prescribed in an otherwise healthy individual for a small, localized swelling without systemic signs and symptoms of an infection or spread of an infection (¶4.3.1).

7.2.3 Prompt Referral.

While palliation is appropriate at sick call, the problem will not be resolved without treatment by a dentist. Absent evidence of a wider infection, the appropriate treatment is providing an analgesic and making a prompt referral to a dentist (¶4.3). Antibiotic use must be circumspect (¶4.3.1) and the practice of repeated courses of antibiotics should be avoided.[20] Failure to remove the source of the infection promptly leaves the inmate with a chronic infection that can be a continual source of pain and recrudescence.

7.2.4 Follow-up.

Patients who have been placed on antibiotics and return before their dental appointment should be seen by a clinician competent to perform an examination or assessment. At this point it is critical to determine if the infection is progressing to a cellulitis or spreading to fascial spaces. A decision should be made whether to: 1) use a different antibiotic, 2) make an expeditious appointment with an oral surgeon, or 3) transport immediately to a hospital.[21]

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[20] Since an infected tooth will not resolve without treatment by a dentist, it is predictable that the symptoms will recur unless the source of the infection is removed by a dentist. That Dr. Hynick felt it necessary to prescribe repeated courses of antibiotics to many patients (Exhibit C) is a clear sign that NCP inmates have inadequate access to dental care.

[21] If the patient is having difficulty breathing or swallowing; cannot open his mouth more than 10 mm, has a fever greater than 101°F, or if the infection is progressing rapidly, he should be referred to an oral surgeon or a hospital. Peterson at 352.

8.0 FINDINGS

Dental care is routinely delayed or denied at NCP. There are no written policies with respect to dental referrals or any other aspect of the dental program. Inmates complaining of toothaches are seen initially by the Prison nurse who does not perform a competent examination and they are prescribed antibiotics without an infection having been diagnosed. Because dental care is untimely, inmates are exposed to multiple avoidable courses of antibiotic therapy. Furthermore, NCP appears to have a *de facto* extraction only policy.

8.1 Data.

8.1.1 Dental Treatment.

I reviewed 51 invoices[22] for dental services provided by Dr. Jon Ficken during the 45 month period from January 15, 2006 to September 16, 2009 as well as accompanying radiographs. There were 22 months (49%) in which Dr. Ficken saw no NCP inmates[23].

I reviewed a summary of Dental Trips from March 1, 2006 through August 9, 2008 extracted from NCP log books. Sprout Decl. at S57-S59. There were 40 entries comprising 33 different individuals. Seven entries did not correspond to the invoices described above and 10 of the names of inmates who made dental trips did not correspond to Inmate Health Records I reviewed.

8.1.2 Health Record Review.

I reviewed 80 Inmate Health Records provided by plaintiffs' counsel that were represented as belonging to inmates who presented with complaints involving dental pain (toothache) and had multiple cycles of antibiotics, experienced significant delays in obtaining a dental appointment, or did not get a dental appointment before their release. A narrative summary ("Narrative") of the treatment of these inmates is in Exhibit C. Each case begins with a statement of the ways, in my opinion, NCP failed to meet the standard of care.

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[22] Of the invoices, 21 did not correspond to the dental records I reviewed.

[23] April, June, September, October 2006; January, February, April, May, July, September, December 2007; January, February, May, June, July, September, December 2008, and January, February, May, July 2009. Moreover, there were NCP inmates in severe dental pain during all those months. *See*, Exhibit D and ¶8.3 *infra*.

Exhibit D summarizes NCP's disposition of inmates complaining of toothache based on data extracted from the Inmate Health Records (Exhibit C). The data elements are:

- Inmate ID (Column A). A unique coded identifier used to protect inmates' privacy.
- Date of First Complaint / Encounter for Dental Pain (Column B). The date of the first documented Inmate Request Form that mentions dental pain. Often there was a clinical (nurse's) note describing a patient encounter in response to an inmate request; however, the Inmate Request Form was not in the record.[24] When this occurred, I recorded the entry date of the clinical note.
- The Date of Dentist Appointment (Column C). The date on Dr. Ficken's consultation form filed in the Inmate Health Record or the date treatment was provided per a copy of the invoice. If a consultation form was not present, I used the date on the post-operative prescription. If neither was present, I used information from the nurse's note made after the dental appointment. In the absence of any of these documents, I concluded that the inmate was not treated[25]. On the other hand, if an inmate refused a dental appointment or refused to allow Dr. Ficken to treat the tooth that was causing pain, I considered the treatment to have been provided and recorded that date in Column C.
- Date of Release from NCP (Column D). The date of release from the Disposition Column of Criminal History Form. When the Criminal History Form was absent or incomplete, I used the date of the last entry in the record (Column E)[26]. Typically, this was an entry on the Medication Administration Record ("MAR").
- Time until Treatment (Column F) was determined by subtracting the Date of First Complaint / Encounter for Dental Pain (Column B) from the Date of Dentist Appointment

[24] When the Inmate Request Form was missing, the only 'record' of the inmate's complaint and the magnitude and frequency of the pain was the clinical (nurse's) note. Often, the notes attenuated the inmate's description of the pain ("my tooth is killing me" or, "*I am in a lot of pain. I can't sleep*") in favor of: complains of "lower left dental pain". When this occurred, the inmates' reported pain was understated. As an example, inmate 45 reported on 4/29/09 that: "The Keflex seems not to be working at all for some reason. Is there anything else you can give for pain? I've been in excruciating pain all weekend almost to the point of passing out". The nurse's note on 5/1/07 states: "Seen in medical office for D/T dental pain ↑ [upper] and ↓ [lower]".

[25] Several records contain clinical notes that state that the inmate was scheduled for an appointment; however, absent documentation, I concluded that the appointment was not consummated.

[26] To the extent the inmate's release was after the last entry in the chart, the amount of time the inmate was awaiting a dental appointment is understated.

(Column C). It is the number of days between the two dates.[27]

- Duration (Untreated) is time that passed without treatment (Column G)[28], was determined for inmates who presented with a dental complaint and were not seen by Dr. Ficken. It is the number of days between the Date of First Complaint / Encounter for Dental Pain (Column B) and the Date of Release from NCP (Column D) or (in its absence) the Date of Last Entry in Chart (Column E)[29].

- The Number of Antibiotic Courses (Column H) is the number of times antibiotics were ordered or dispensed (determined from clinical notes and the MAR[30]).

8.1.3 Prevalence of Toothache.

The 80 records I reviewed comprised 93 complaints of a toothache between September, 2004 and June, 2009[31]; a 58 month period (Exhibit D). At any given time, inmates who complained of a toothache were waiting for a dental appointment. The average number of such inmates each month (monthly prevalence of toothache) was 10.8 in 2006, 7.0 in 2007, 8.2 in 2008, and 6.8 in the first half of 2009.[32]

8.1.4 Physician Hours On-Site.

Dr. Robert Hynick is the source of primary care for NCP inmates. By contract, he visits NCP on a regularly scheduled day each week[33], although he stated that he spends two or three hours at NCP each week. Hynick Deposition at 33-34. The most consistent accounting of Dr. Hynick's hours at NCP comes from the Shift Commanders' Log Books[34,35]. Hynick Hours. According to the Log Books, Dr. Hynick was at NCP a total of

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[27] All computations were made using Microsoft Excel® 2007.

[28] I explicitly assume that a problem that produced tooth pain for which Dr. Hynick ordered an antibiotic (*i.e.*, an infection) cannot be resolved without treatment by a dentist (¶4.3).

[29] To the extent that the date of the last chart entry or the date on the MAR differs from the release date, the Duration (Untreated) will be understated.

[30] In several records, the inmate's release date was written in the MAR.

[31] Several inmates had more than one toothache during one or multiple incarcerations.

[32] I made the computations from data in Exhibit D. Inmates who did not have their toothache resolved by a dental appointment, did not refuse a dental appointment, or were released after the 15th of the month were counted as prevalent cases.

[33] The contract does not set a minimum number of hours for the mandated weekly visits.

[34] Warden Reish stated that while the log book is accurate for inmate counts, it is less so for determining Dr. Hynick's attendance at NPC. The accuracy of the log "depends on which lieutenant is on". Reish Deposition at 161. While Dr. Hynick may have made other visits to NCP, the absence of a document or documents to support his assertion is problematic. Even if the log book underreported Dr. Hynick's attendance materially,

40.9 hours in 2006, 61.8 hours in 2007, 80.6 hours in 2008, and 34.0 hours in 2009 (through September)[36]; on average, 3.4, 5.2, 6.7, and 3.8 hours per month, respectively. *See Id.*

8.2 The NCP Dental Program.

NCP does not have a dental program; that is, there are no written policies, protocols, or procedures that address the treatment of inmate dental problems[37]. The NCP Inmate Handbook section that addresses Medical Services and Sick Call makes no mention of toothache or dental care. *Id.* at 8. The only source of primary care at NCP stated that "[dental] [s]ervices [are] provided by a local dentist who treats the prisoners weekly or bi-weekly at his office in a neighboring town. This has provided satisfactory care for the prison population." Hynick Memo".[38] No NCP executive takes day-to-day responsibility for ensuring that inmates receive appropriate and timely dental care.[39,40] Moreover, there is no process for internal or external review of the dental program.

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the opinions stated in §9 would not change since the hours he spent at NCP redounded little to inmates with toothaches. He spent too little time at NCP.

[35] Plaintiffs' counsel informed me that they were unable to obtain most of the Visitors' Registers' to confirm from them each instance Dr. Hynick visited the Prison and the times he entered and exited the institution.

[36] Many of the dates in the log book had missing 'in' and/or 'out' times (2/14/06, 6/9/06, 7/19/06, 7/26/0610/24/06, 10/31/06, 12/17/06, 2/6/07, 2/13/07, 4/7/07, 4/13/07, 10/15/07, 10/22/07, 10/30/07, 11/10/07, 11/14/07, 11/21/07, 12/4/07, 12/6/07, 12/18/07, 2/12/08, 5/27/08, 6/3/08, 6/26/08, 10/15/08, 9/12/08, 11/12/08, 11,25/08, 12/1/08, 1/22/09, 2/3/09, 2/4/09, 3/3/09, 3/17/09, 3/23/09, 4/7/09, 4/14/09, 7/7/09, 7/14/09, 8/11/09, 9/1/09, 9/8/09, 9/22/09, and 9/29/09), so the amount of time spent at NCP could not be computed directly. To compensate for this, I calculated the average time Dr. Hynick spent at each visit to NCP and imputed that value to all missing times in that year. Calculations based on data collected through September 2009 and computations for 2009 were based on a 9 month period.

[37] In fact, the most recent (2009) health care policy (SM-12) does not even mention dental care.

[38] The Hynick Memo is confuted by Dr. Ficken's invoices showing that Dr. Ficken was far less accessible to NCP inmates than Dr. Hynick represented. *See* ¶4.1.1 *supra*. Moreover, in light of the clinical histories summarized in Exhibit C, his statement that the NCP "has provided satisfactory care for the prison population" is simply inexplicable. Since he countersigned all nurse's entries and prescriptions, he could not be unaware that many inmates were experiencing continual pain and recurrent infection because access to dental care was inadequate.

[39] With the exception of Dr. Hynick's Standing Order that directs the nurse to order antibiotics for all inmates who present with a toothache.

[40] In response to the question "Who, if anybody, was considered to be the head of the medical department?", Warden Reish responded, "me". Reish Deposition at 156.

8.2.1 Access to Dental Care.

Inmates who have a toothache (or any other medical problem) may fill out an Inmate Request Form. A nurse interviews the inmate and executes Standing Orders[41] written by Dr. Hynick and notes this in the health record. Dr. Hynick is required to review and countersign the nurse's note. Dr. Hynick was asked to estimate the percentage of the inmates who complain of toothaches he sees. He responded: "I could estimate 30, 40 percent". Hynick Deposition at 44. In response to the follow-up question: "And if you see them, you'll -- it's your practice to write a SOAP[42]?" He responded: "Yes". *Id.* at 44. My review of 80 charts (Exhibit C) found evidence of Dr. Hynick's examining inmates' teeth in only 10[43] (13%) charts.

Dr. Hynick's functions with respect to dental care at NCP were described by Warden Reish.

> *Q Okay. Did he [Dr. Hynick] have any role to your knowledge in the area of dental care of NCP inmates? Did he play any role in that to your knowledge?*
>
> *A Unless there was an infection. If there was an infection, he would sometimes see the inmate and recommend an antibiotic. If it was a medication type thing, he would get involved in that. He's a medical doctor. He's not a dentist.*
>
> *Q What is your understanding of how an inmate would get to see -- to be sent to Dr. Ficken's office for dental treatment? What was your understanding of what that -- how that procedure operated?*
>
> *A Well first of all, and this is what I always talked about with the nurse and the Doctor and everybody. We're not -- the County is not providing routine dental treatment. We're more of an emergency dental care.*

Reish Deposition at 166.

The Medical Report stated:

> *There are currently several inmates with dental problems that will need to be sent out to the dentist over the next few weeks. A lot of inmates come into NCP with broken teeth, large cavities which can not be restored and dental infections. They have poor dental hygiene. They are treated with Antibiotics and Ibuprofen. Several inmates are staying at NCP for longer stays and they will require extractions.*

Prison Board 3/25/09.

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[41] A standing order is an order from a physician, usually for multiple items, that is entered and does not require any further communication from a nurse to the physician.

[42] SOAP (subjective, objective, assessment, plan) is a standard template for documenting patient encounters at sick call.

[43] Inmates 10, 89, 93, 109, 177, 208, 216, 233, 244, and 249.

8.2.2 Standing Order for Toothache With Or Without Abscess.

The NPC "Standing Order for Toothache With Or Without Abscess" ("Order")[44] is incomplete, erroneous, and results in unnecessary exposure to antibiotics. If the inmate is in pain, the nurse executes the Order that specifies: 1) Penicillin V-K ("PVK") 500 milligrams ("mg") taken orally 3 times daily for 7 days; or in the alternative, Keflex 500 mg taken orally 3 times daily for 7 days for patients who are allergic to Penicillin and 2) Ibuprofen 600 mg orally 3 times daily for 7 days.

Pursuant to the Order, the nurse is not required to look in the mouth or even take vital signs[45]; consequently, vital signs were uniformly absent from the nurse's notes. While the Order has several serious deficiencies, lack of simplicity is surely not among them. The nurse determines whether the inmate has a toothache and orders antibiotics and analgesics in Dr. Hynick's name. Furthermore, the Order contains no guidance as to the circumstances under which Dr. Hynick should be called[46] or how soon the inmate should be seen by the dentist.

The order also states:

> DENTAL APPT WITH HX OF: RHEUMATIC FEVER, HEART MURMUR[,] MITRAL VALVE PROLAPSE WITH REGURGITATION, HYPERTROPHIC CARDIO MYOPATHY [*sic*], BACTERIAL ENDOCARDITIS[,] PROSTHETIC CARDIAC VALVE, PULMONARY SHUNT.

Id. Emphasis in the original. In addition, the above guidance is based on an outdated (1997) American Heart Association ("AHA") protocol (AHA at 1738). The current AHA recommendations, published in 2007, substantially limit the conditions for which premedication is recommended. No longer does a patient with a history of rheumatic fever or a heart murmur, *per se*, require antibiotic premedication.[47] Moreover, while one can expect a mid-level provider to infer the existence of the conditions listed in the order (*viz.*, mitral valve prolapse with regurgitation, hypertrophic cardiomyopathy), from the inmate's

[44] The Standing Order is unsigned and undated.

[45] Taking vital signs is within the scope of practice of an LPN. In fact, Dr. Hynick's "Withdrawal Protocol" directs the nurse to take vital signs.

[46] For example, "if the patient complains of difficulty breathing, has a fever above 100° F, or has trouble swallowing, call me."

[47] Previous rheumatic fever without valvular dysfunction and physiological or functional heart murmur are considered to be "negligible risk with no antibiotic premedication recommended. AHA at 1745.

medical history or by interview, a similar expectation for an licensed practical nurse is, at best, overoptimistic[48].

While the Order contains instructions (albeit dated) for antibiotic premedication to prevent infective endocarditis in patients with specific cardiac pathology, no such instructions are present for patients with total joint replacements despite the American Academy of Orthopaedic Surgeons' ("AAOS") recommendations (¶4.3.2). Failure to provide appropriate antibiotic prophylaxis could result in a deep infection of the total joint replacement, failure of the initial operation, and the need for extensive revision. AAOS at 1.

8.2.3 Sick Call Encounter with the Nurse.

Sick call for a toothache is more an administrative than a clinical process. As discussed previously, the Order does not require the nurse to take vital signs or make any other observations (¶8.2.2); consequently, the clinical information is exiguous at best. Even when the nurse looks in the inmate's mouth, the clinical description is so vague as to be diagnostically useless. The nurse's notes are rife with statements that provide virtually no information such as "redness and edema on lower (or upper) gum line".[49]

8.2.4 Obtaining a Dental Appointment.

Since NCP does not have a dental clinic, it contracts with Dr. Jon Ficken to treat inmates in his dental office, approximately 20 minutes from NCP. Yeager Deposition at 38. While Dr. Hynick's Order addresses the medication to provide patients who complain of a toothache, it provides no guidance as to the circumstances under which a dental appointment should be scheduled or what the minimum waiting period should be (¶8.2.2).

Since there is no written policy or procedure to determine under what circumstances inmates may (or should) be appointed to see Dr. Ficken or who has the authority to authorize making an appointment, I reviewed relevant portions of the Yeager, Hynick, and

[48] The minimum requirements for the NCP job description of a "Grade P Staff Nurse (LPN)" are "[h]igh school diploma or the equivalent. Graduation from an accredited one year practical nurse program. Must pass State Board of Nurse Examiners practical nurses examination." *Id.*

[49] "Redness and edema on the gum line could be caused by gingivitis (a painless inflammation of the gums that is common in the general population and even more common in a correctional population) and have nothing to do with the toothache. Moreover, a patient with a toothache often finds brushing (and *a fortiori*, flossing) to be painful. The resulting accumulation of plaque will cause a gingival inflammation. Observations such as the presence or absence of a sinus tract, the presence or absence of a hard, doughy, or soft internal swelling, the presence of tender lymph nodes, and vital signs are not made. Since the nurse rarely documented specific clinical findings that would provide useful information to Dr. Hynick, she might as well have not been present. *See* also the case summaries (Exhibit C) that cite the nurse's notes.

Reish depositions to attempt to construct this process. In response to a question about the basis for his statement that inmates receive dental treatment "weekly or biweekly" (Hynick Memo) Dr. Hynick stated:

> *Well, I believe that depends upon -- I believe that was all how often they had a transport availability to [Dr. Ficken's] office depending upon number of inmates that required his care. I think at times it was weekly, probably more realistically it was every other week.*

Hynick Deposition at 38. In a subsequent question, Dr. Hynick was asked "is it your testimony that [the ability to get inmates to Dr. Ficken] was based on the availability of transport services?" *Id.* at 39. He responded: [T]hat was one aspect to it because [Dr. Ficken] did not come on site. So it was a coordination of the County's ability to transport the prisoners to fit in with the dentist's office hours." *Id.* at 39.

Nurse Yeager was asked about NCP's dental referral policy. She said that the prison administration does not limit the number of inmates that may be sent to Dr. Ficken in the course of a month (Yeager Deposition at 114) and the nurse may make an appointment with Dr. Ficken's office "if [inmates] have like a bad abscess, maybe a broken tooth". *Id.* at 112. Moreover, Dr. Ficken has been willing to see NCP inmates on any Wednesday where he has an open appointment slot. Generally, it takes from two to four weeks to get an appointment.[50] *Id.* at 114.

In response to a question about who decides to send an inmate to see Dr. Ficken, Warden Reish stated that the nurse keeps the dental list but Dr. Hynick is "would be involved in that decision somewhere along the line -- and if it was an infection, yeah he would". Reish Deposition at 167. In response to a follow-up question asking if Dr. Hynick would be the decider, Warden Reish stated: "Well, I can't say he would be the decider. Sometimes I would be the decider. I'd say, hey, this guy – I saw this guy down on the block and his jaw was out to here. And the nurse would say, yeah, we've been treating him for an infection. I'd say well, it's time. It's time to get him to a dentist." *Id.* at 167. This contradicts

[50] It is difficult to reconcile Nurse Yeager's statement that it generally takes between two and four weeks to get an appointment with Dr. Ficken with the fact that the average time to be treated once a toothache was diagnosed was 104 days and the average time inmates spent without being treated was 123 days (¶8.2.1). Perhaps, Nurse Yeager does not request the appointment when the inmate first presents with the toothache but rather 'monitors' the inmate for several weeks or months before deciding (in her clinical judgment) that it is propitious. If Nurse Yeager is making such a decision, rather than performing a ministerial function, she is involved in clinical decision-making beyond the scope of her training and perhaps her license.

the testimony of Nurse Yeager who stated that she has the authority to make dental appointments for inmates.

Another constraint in the appointment process is transportation; that is, the availability of a vehicle and escort (two officers).[51] Yeager Deposition at 114. According to Nurse Yeager, it requires two officers to escort one or two inmates to a dental appointment; however, there are times that only one inmate is sent (*Id.* at 114). This is consistent with Dr. Hynick's testimony.

8.3 Timeliness of Dental Care.

Access to dental care is untimely to the point of delaying / denying needed treatment. Exhibit D[52] (Column F) shows the time inmates waited before being seen by Dr. Ficken.[53] For the 36 visits documented, the minimum, maximum, and average time to be treated (*i.e.*, waiting time) was 16, 402, and 104 days, respectively. While some inmates were treated within 30 days, the majority waited more than two months; with six[54] waiting more than six months. In fact, the average number of inmates each month who complained of a toothache in the queue for a dentist appointment each month was 10.8 in 2006, 7.0 in 2007, 8.2 in 2008, and 6.8 in the first half of 2009 (¶8.1.3).

For the 54 inmates (68%) who presented with a complaint of 'toothache' but were released before Dr. Ficken saw them[55] (Column G), the minimum, maximum, and average time they were left untreated (*i.e.*, untreated time) was 10, 327, and 123 days, respectively. While some inmates were released shortly after they complained of a toothache, even more[56] were untreated after six months.

The number of courses of antibiotics (Column H) prescribed by Dr. Hynick ranged from zero to 14[57], an average of 3.1 courses. The Narrative (Exhibit C) shows that many inmates

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[51] Unless the inmate is on work release. Yeager Deposition at 115.

[52] ¶8.2.1 provides a description of the data in this table.

[53] Some inmates (173, 197, and 216) declined the dental appointment. For the purpose of the table, dental treatment was considered to have been provided on the date the inmate declined the dental appointment.

[54] Inmates 103, 173, 177, 184, 212, and 216.

[55] Some inmates had one toothache treated by Dr. Ficken while a subsequent toothache was untreated at the time of their release from NCP.

[56] Inmates 46, 53, 72, 92, 93, 103, 127, 128, 142, 202, 204, 208, and 250.

[57] Inmate 202 (over two incarcerations).

were given antibiotics and pain relievers for several months until the tooth was extracted (or they left NCP)[58].

8.3.1 Delayed Dental Care.

As noted in ¶8.3, inmates with toothaches wait much longer than the two to four weeks Nurse Yeager stated that it takes to get an appointment with Dr. Ficken. Yeager Deposition at 114. While there is no written policy with respect to dental referrals, testimony and statements made at Prison Board meetings suggest that there is an unstated policy to delay sending an inmate for dental treatment as a cost avoidance measure.

Warden Reish testified that that sometimes he would advise medical staff that if

> [the Medical Department] *can treat* [a dental infection] *with an antibiotic, we'll treat it with an antibiotic. If that works, yeah, everything's good. If it doesn't work, we're probably going to set the person up with an appointment with Dr. Ficken.*[59]

Reish Deposition at 166. Warden Reish testified that occasionally he would see an inmate on the cell block that the Medical Department has been treating for a dental infection and he would tell the Prison nurse that it we time to get the inmate to the dentist. Reish Deposition at 167.

I reviewed extracts of Prison Board minutes from January 4, 2006 to February 3 2010. Several entries were related to dental care. The Medical Report stated:

> [t]*here are currently several inmates with dental problems that will need to be sent out to the dentist over the next few weeks. A lot of inmates come into NCP with broken teeth, large cavities which can not be restored and dental infections. They have poor dental hygiene. They are treated with Antibiotics and Ibuprofen. Several inmates are staying at NCP for longer stays and they will require extractions.*

Prison Board at 3/25/09. Warden Reich's guidance to the medical staff is that only inmates with toothaches that are infected and cannot be managed with an antibiotic should be sent to Dr. Ficken. This guidance could explain the discrepancy between Nurse Yeager's testimony that it generally takes between two to four weeks to schedule an appointment with Dr. Ficken and the data in Exhibit C and ¶8.3.

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[58] While one can say that inmates did have access to care because they were seen on sick call whenever their toothache recurred, the access was not to dental care – the only modality that could remove the source of their pain.

[59] I take Warden Reish's testimony to be NCP's (unwritten) policy on dental referrals; that is, temporize with antibiotics and analgesics until the inmate is released and make a dentist appointment only as a last resort. Consequently, many inmates with abscesses who are in continual pain are not referred timely.

8.3.2 Consequences of Delayed Dental Care.

NCP's failure to provide timely dental treatment was responsible for recurrences of odontogenic infections and avoidable exposure to multiple courses of antibiotic therapy. Exhibit C shows that as the result of NCP's delay and/or denial of dental care, many inmates were in continual severe pain for periods as long as a year.[60] In fact, 26 inmates[61] who did not receive a dental appointment after a month passed reported[62] pain that they characterized as "unbearable", or that they "can't deal with"; or complained of constant headaches or pain that interfered with eating or sleeping. Not only were many inmates in continual pain due to lack of timely dental care, but Dr. Hynick's response to the recrudescent infections was repeated courses of analgesic and antibiotic therapy – typically without examining the patient.

8.4 Dental Care Provided by Dr. Ficken.

I reviewed 51 invoices from January 15, 2006 through September 16, 2009. In addition, I reviewed panoramic radiographs and clinical chart entries associated with all but six of the invoices.[63] The treatment Dr. Ficken provided was almost exclusively extractions.

While Dr. Ficken provides episodic care and notes other serious problems in the inmate's mouth (*i.e.*, abscesses and non-restorable teeth), he does not perform a comprehensive examination and set out a sequenced treatment plan.[64] From a review of the Dr. Ficken's radiographs and clinical narratives, it is clear that inmates often leave his office with a serious problem resolved (almost invariably by extraction), while several similar problems remain. There is no documentation that NCP offers to schedule a follow-up appointment to treat the other (asymptomatic) abscesses (or, in the alternative,

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[60] The clinical histories of inmates 8, 10, 14, 37, 45, 61, 72, 103, 109, 117, 177, 197, 246, and 256 are particularly egregious examples of the effects of delay/denial of dental care.

[61] Inmates 8, 10, 15, 17, 20, 25, 36, 37, 45, 61, 62, 72, 79, 80, 90, 96, 103, 109, 117, 147, 173, 197, 218, 227, and 256.

[62] As mentioned previously, the nurse's notes did not record the inmate's complaint exactly as it was related. Consequently, this review was limited to records with the Inmate Request Form. *See* * 24.

[63] Inmates 49, 53, 173, 197, and 262 (2 invoices).

[64] A comprehensive examination would generate an additional charge. A treatment plan indicates which teeth require treatment and the priority of the treatment. *See*, ¶6.1.

document a signed inmate refusal). Inmates often return to NCP with several unresolved dental abscesses and broken-down teeth[65].

8.5 Scope of Care at NCP.

Aside from the lack of timely care, the scope of care at NCP is too narrow. *See* §5. From the invoices and records I reviewed, care is limited to extractions[66]. Additional evidence for the existence of a *de facto* extraction only policy is Dr. Hynick's statement that "Dental care is through Dr. Ficken on a monthly basis and he provides extractions or a referral to an oral surgeon." Hynick Evaluation Memo. When asked about his understanding of the scope of services provided by Dr. Ficken, Dr. Hynick responded that the primary service Dr. Ficken provided was extractions. Hynick Deposition at 17.

Warden Reish put it this way: "Well first of all, and this is what I always talked about with the nurse and the Doctor and everybody. We're not -- the County is not providing routine dental treatment. We're more of an emergency dental care." Reish Deposition at 166. Moreover, at a December 5, 2007 Prison Board meeting, Judge Sacavage asked whether the Prison had a contract with a dentist and if the work done on these inmates was for dental emergencies. Warden Reish stated that the Prison had a contract with dentist Jon Ficken "and that all that were cared for were dental emergencies." Prison Board at 12/5/07. He informed the Board that "[e]mergency dental treatment vs routine dental work [is] being accomplished ..." Prison Board at 8/7/08.

9.0 OPINIONS

- In my opinion, based on a reasonable degree of medical certainty, the treatment of inmates with dental pain at NCP falls below the standard of care, exposes them to substantial risk of harm, results in the unnecessary infliction of pain, and has the effect of delaying or denying dental care to many inmates.

[65] Failure (on the part of NCP) to follow-up and ensure treatment of dental abscesses is below the standard of care and places inmates at risk of systemic infection and additional painful episodes.

[66] There is no documentation of any procedure other than extractions since May, 2006.

9.1 Lack of a Competent Examination.

- In my opinion, based on a reasonable degree of medical certainty, NCP's failure to ensure that inmates with dental pain received a competent examination falls below the standard of care and puts their health in jeopardy.[67]

At NCP sick call examinations are performed by a licensed practical nurse. To compensate for this limitation, Dr. Hynick has written a Standing Order that does not require that the nurse examine the patient's mouth or document clinical findings. All she must do is to determine whether the inmate has a "toothache with or without abscess" – that is, whether the inmate has a toothache. She is not required to take vital signs; an activity within her skill set. Consequently, the nurse's notes contain insufficient clinical information for a clinician to make a proper diagnosis. Dr. Hynick, the only member of the Prison Medical Department competent to perform an examination and diagnosis, does not spend sufficient time at NCP to do so (¶8.1.4).

9.2 Lack of a Diagnosis Based on Sufficient Clinical Data.

- In my opinion, based on a reasonable degree of medical certainty, NPC's failure to ensure that there was a proper diagnostic determination based on a competent examination before antibiotics were prescribed falls below the standard of care and subjected inmates to unnecessary exposure to antibiotics.[68]

Since the appropriate treatments for tooth fractures, caries into the dentin, reversible pulpitis, and irreversible pulpitis (all of which can cause 'toothache') are different, it is essential that the correct diagnosis is made. However, a reasonable and prudent clinician cannot make an appropriate diagnosis absent sufficient and accurate clinical data.

NCP has chosen not to have a physician[69] or mid-level provider routinely examine inmates complaining of dental pain and instead relies on a licensed practical nurse that cannot perform a proper examination. *See* ¶7.1. The only primary care provider currently practicing at NCP who may perform such an examination is Dr. Hynick, who spends too few hours at NCP to do this (¶8.1.4).

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[67] The basis for this opinion is discussed in ¶7.2.1.

[68] The basis for this opinion is discussed in ¶7.2.2.

[69] Dr. Hynick examined 13 percent of patients complaining of toothache (¶8.2.1), most of them only after several courses of antibiotics. *See* Exhibit C.

9.3 Prescribing Antibiotics When Not Warranted by Clinical Findings.

- In my opinion, based on a reasonable degree of medical certainty, NCP's condonation of Dr. Hynick's Standing Order was responsible for prescribing antibiotics to many inmates with no documented abscess. This is below the standard of care and unnecessarily exposed patients to antibiotics.[70]

The Order directs the nurse to order antibiotic (in Dr. Hynick's name) for "toothache with or without abscess"; that is, all toothaches, regardless of etiology. This is problematic for two reasons. First, many toothaches are not the result of infection but rather are due to tooth fractures, caries, and (reversible and irreversible pulpitis). For these patients antibiotic therapy is therapeutically useless since there is no infection to treat and is potentially harmful to the extent that unnecessary exposure to antibiotics can result in the development of antibiotic resistance.

Second, antibiotics are not indicated when the infection is localized to the tooth. Pain alone or localized (intraoral) swelling does not require antibiotic treatment[71]. Fevers greater than 100° F, malaise, lymphadenopathy (enlarged lymph nodes), or trismus (spasm of the jaw muscles) are clinical signs that possible spread of the infection has occurred (Swift and Gulden, 325).

9.4 Inadequate Access to a Dentist.

- In my opinion, based on a reasonable degree of medical certainty, access to dental care at NCP is inadequate; resulting in extended delays that needlessly endanger inmates' health, exposes them unnecessarily to antibiotics and results in the unnecessary infliction of pain. For many inmates, the delay was so long to be tantamount to denial of care.[72]

It is a canon in oral surgery and emergency medicine textbooks that while emergency departments may prescribe analgesics and antibiotics (when indicated), prompt referral to a dentist is necessary to treat the tooth that is causing the pain. Moreover, the importance of timely dental care endorsed by the American Public Health Association and the National Commission on Correctional Health Care (¶6.1). Timely access to dental care has also

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[70] The basis for this opinion is discussed in Exhibit C, ¶7.1, and ¶7.2.

[71] The appropriate treatment is to remove the source of infection by extracting the tooth, performing an incision and drainage, or initiating endodontic (root canal) therapy.

[72] The basis for this opinion is set forth in ¶8.3.

been incorporated to stipulated injunctions that settled major state prison (¶6.2) and county jail (¶6.2.3.1) lawsuits. Furthermore, the Department of Justice identified failure to provide timely dental care as a problematic in its inspections of jails in Cook County, Illinois (¶6.3.2) and Lake County, Indiana (¶6.3.3).

In contrast to the community standard (§6), Exhibit C documents scores of clinical cases in which NCP's failure to secure timely dental appointments for inmates despite persistent complaints of pain. Moreover, the medical 'treatment' provided by NCP was little more than temporizing ('kicking the can down the road') until the inmate was released or an appointment with Dr. Ficken was made. Moreover, it appears that the *de facto* policy is to wait until the inmate has had several courses of antibiotic and continues to complain or is released (¶8.3.1).

9.5 Inadequate Scope of Care.

- In my opinion, based on a reasonable degree of medical certainty, the scope of care is too narrow constituting a *de facto* extraction only policy. This is below the standard of care.[73]

While the majority of inmates complaining of a toothache whose dental radiographs I reviewed had abscesses for which an extraction is an appropriate treatment, there other causes of toothache (*e.g.*, a broken filling) for which an extraction is entirely inappropriate. Given statements of Dr. Hynick and Warden Reish, the NCP policy is not to authorize treatment other than extractions (¶8.5).

[73] The basis for this opinion is provided in §5, §6, and ¶8.5.

10.0 REFERENCES

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6. Deposition of Ralph Reish, November 10, 2009. ("Reish Deposition").
7. Deposition of Anne Yeager, November 13, 2009. ("Yeager Deposition").
8. Dr. Hynick's Appearances at the Prison. A list of Dr. Hynick's hours from January 2006 through October 2009 provided by plaintiffs' counsel ("Hynick Hours").
9. Dr. Hynick's Standing Order for Toothache With And Without Abscess. Deposition Ex. 57.
10. Exhibit S - David Sprout Declaration. ("Sprout Decl.").
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11.0 EXHIBITS

Exhibit A. ***Curriculum Vitae*** **– Jay D. Shulman**

Exhibit B. Documents Reviewed

Exhibit C. Summarized Medical Records of Dental Patients

Exhibit D. NCP's Disposition of Inmates Complaining of Toothache

EXHIBIT A

CURRICULUM VITAE - JAY D. SHULMAN – Prepared March 1, 2010

PERSONAL INFORMATION

Address: 9647 Hilldale Drive, Dallas, Texas 75231
Telephone: (214) 923-8359
E-mail: jayshulman@sbcglobal.net

EDUCATION

1982 Master of Science in Public Health
University of North Carolina

1979 Master of Arts in Education and Human Development
George Washington University

1971 Doctor of Dental Medicine
University of Pennsylvania

1967 Bachelor of Arts (Biology)
New York University

POSITIONS HELD

Academic

2007 – Adjunct Professor, Department of Periodontics
Baylor College of Dentistry

2003 - 07 Professor (Tenure), Department of Public Health Sciences
Baylor College of Dentistry (retired October, 2007)

1993 - 03 Associate Professor Department of Public Health Sciences
Baylor College of Dentistry

Military

1971 - 93 Active duty, U.S. Army. Retired July 1993 in grade of Colonel.

1990 - 93 Chief, Dental Studies Division & Interim Commander (1993)
US Army Health Care Studies and Clinical Investigation Activity

Directed Army Dental Corps' oral epidemiologic and health services research. Supervised a team of public health dentists, statisticians, and management analysts. Designed and conducted research in oral epidemiology, healthcare management and policy.

1987-90 Director, Dental Services Giessen (Germany) Military Community Commander, 86th Medical Detachment Public Health & Preventive Dentistry Consultant, US Army 7th Medical Command.

Directed dental care for Army in North Central Germany. Operated 6 clinics with 20 dentists and 60 ancillary personnel. Responsible for the dental health of 25,000 soldiers and family members and for providing dental services during wartime using portable equipment. Provided technical supervision of public health and preventive dentistry programs for the Army in Europe.

1984 - 87 Chief, Dental Studies Division US Army Health Care Studies & Clinical Investigation Activity. Public Health & Preventive Dentistry Consultant to Army Surgeon General.

Directed Army Corps' oral epidemiologic and health services research. Supervised a multi-disciplinary team of public health dentists, statisticians, and management analysts. Designed and conducted research in oral epidemiology, healthcare management and policy. Technical supervision of all Army public health and preventive dentistry programs worldwide.

1982 - 84 Assistant Director for Research US Army Institute of Dental Research.

Responsible for Management of $1,000,000 extramural research program.

1980 - 82 Full-time graduate student (Army Dental Public Health Training Fellowship) at the School for Public Health, University of North Carolina at Chapel Hill.

1976 - 80 Director, Dental Automation
US Army Tri-Service Medical Information Systems Agency
Walter Reed Army Medical Center Washington, DC

Directed a team of computer scientists in the development of an automated management system for the Army dental clinics and upper management

1975 - 76 Clinical Dentist Pentagon Dental Clinic Washington, DC

1974 - 75 Clinical Dentist U.S. Army Hospital Okinawa, Japan

1971 - 74 Clinical Dentist US Army Dental Clinic Fort McPherson, Georgia

BOARD CERTIFICATION AND STATE LICENSE

Current Dental Licensure.

Texas #17518 (retired)

Board Certification.

Diplomate, American Board of Dental Public Health since 1984 (active).

RESEARCH - AREAS OF INTEREST

Oral epidemiology, health services research, health policy, military and correctional health.

RECENT FUNDED RESEARCH

2002 - 07 Dental caries and fluorosis and esthetic concerns after discontinuation of water fluoridation. Canadian Institutes of Health Research operating grant MOP-57721 and National Health Research Development Program Operating Grant – 6610-2225-002 ($637,870). Paid consultant.

CURRENT SOCIETY AND ORGANIZATION MEMBERSHIPS

1982 – American Association of Public Health Dentistry

PROFESSIONAL ACTIVITIES

Recent Presentations.

Apr 2009 Public Health, Public Policy, And Legal Issues Associated with Health Care in Prisons: A Dental Perspective. Presented at the University of Iowa

Mar 2008 Public Health and Public Policy Issues Related to Dental Care in Prisons. Presented at University of North Carolina School of Public Health, Chapel Hill, NC.

Jun 2007 Characteristics of Dental Care Systems of State Departments of Corrections. Presented to annual meeting of Federal Bureau of Prisons dentists, Norman OK.

Jun 2006 Public Health Aspects of Correctional Dentistry. Presented to annual meeting of Federal Bureau of Prisons dentists, Fort Worth, TX.

Oct 2006 Opportunities for Dental Research Using the National Health and Nutrition Examination Survey. Indiana University School of Dentistry.

Aug 2006 Dental Public Health and Legal Issues Associated with Correctional Dentistry. Federal Bureau of Prisons.

Dec 2005 Opportunities for Faculty Research Using Secondary Data. Frontiers in Dentistry Lecture. University of the Pacific School of Dentistry.

Feb 2005 Advanced Education in Dental Public Health. University of Missouri, Kansas City School of Dentistry.

Consultant Activities

2009 – Expert witness for Pennsylvania Institutional Law Project, *Inmates of the Northumberland County Prison, et al. v. Ralph Reish, et al.* Federal civil rights lawsuit.

2007 - 2009 Expert for Wisconsin Department of Justice, *Flynn v. Doyle*. Class action lawsuit in Taycheedah Correctional Institution (Wisconsin). Dental care dropped from amended complaint.